### Work Order ID 54706

Page 1

W 15

December 16, 2009 3:27:03 PM

**Required Date: 21/12/2009** 

Item ID:

D412-742-043

Accept

Setup Start



Stop

**Revision ID:** 

Item Name:

Replacement Float Skidtube

**Start Date:** 

16/12/2009

Start Qty: 1.00 Reg'd Oty: 1.00

Cust Item IF:

**Customer:** 

Reference:

Approvals:

Date:

SPC (Y/N):

Run

Start

Date:

Stop

Sequence ID/ **Work Center ID**  Operation Description Set Up/

Draw

Draw

Reject Qty

Reject

**Run Hours** 

0.00

Number

Plan Rev. Code

Accept Qty

Insp. Stamp Number

**Draw Nbr** 

**Revision Nbr** 

Rev H D3391

QC:



DOCUMENT CONTROL

0.00

Memo

Photocopy bluefile and create labels per PPP D412-742-043 CHG004

100

Document Control

If D412-742-043 is a W/O on it's own,

Dart	<b>Aeros</b>	pace	Ltd
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W/O:			WO	RK ORDER CHANG	ES				
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	Part No: PAR #:		Fault Categ	gory:	_ NCR: Ye	s No <b>D</b>	QA:	Date:	
	·Re	esolution:	Disposition	:	_ QA: N/C	Closed: _		Date: _	
NCR:			WORK ORDE	R NON-CONFORM	ANCE (N	CR)			
DATE	STEP	Description of NC	Corrective Action Section			Veri	fication	on Approval	Approval
DAIL	SILF	Section A	Initial Chief Eng	Action Description Chief Eng	Sig Da	n& Se te	ection C	Chief Eng	QC Inspector
									:
<u> </u>									
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#### Work Order ID 54706

December 16, 2009 3:27:03 PM

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It	e	n	n	ID:		

D412-742-043

Accept



Setup Start

Stop



Revision ID:

Item Name: **Start Date:** 

Replacement Float Skidtube

16/12/2009

Start Qty: 1.00 Reg'd Qty: 1.00

**Cust Item ID:** 

Customer:

Reference:

Approvals: **Process Plan:** 

**Required Date: 21/12/2009** 

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ **Work Center ID** 

110

HandFinish

Hand Finishing

Operation Description

Set Up/ **Run Hours** 

Draw Number Draw Plan Rev. Code Accept Qty

Reject **Qty** 

Reject Insp. Number Stamp

0.00

0.00

HandFinishing

Memo \*\*\*\*\*\*\*\*Do not and v LPS, see OC for more info\*\* A/R LPS-3T

2-Install tubes together and seal them all the way around using Sikaflex 241/291. Ensure tube ends line-up with saddle holes for proper alignment, using 7/16" "T" Pins.

A/REESikaflex-241/-291

3-Install wearplates as per Dwg D3391. Ensure that plastic washers are against wearplate, then topped with the SS washer. Coat bolts with LPS "procyon". Seal all bolts with sikaflex exept ones with inserts on inside of tube, hand tighten only bolts with no sikaflex.

A/RELEIS Procyon

A/R 🗆 🗆 Sikaflex-241/-291

4-Remove "T" pins once sikaflex is dry.

5-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser.

m/ 10/02/23

W/O:		WORK ORDER CHANGES								
DATE STE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			

Part No: 1412-742-043

PAR #: \_\_\_\_ Fault Category: Skill Libe

Disposition: verwark

QA: N/C Closed: \_

NCR: 54	1706	WORK ORDER NON-CONFORMANCE (NCR)										
DATE	STEP	Description of NC Section A	Initial Action Description   Sign &			Description of NC Initial Action Description Sign & Verification		escription of NC Initial Action Description Sign & Verification		Verification Section C	Approval Chief Eng	Approval QC Inspector
10.1.13	ilo	Scaldle holes dun't her line up perfectly. PIN CAROLY CAN'T PASS	10.0223 10.0223 10.0223 10.0223	Acceptable to file inside hole to allow passage of pin	M-1 1002/23	olako .	10 WZ. 23 PC OSI 042	5 00/23				
		R.C. Proces		-								

### Work Order ID 54706

Page 3

December 16, 2009 3:27:03 PM

\*\*Required Date: 21/12/2009

Item ID: **Revision ID:**  D412-742-043

Replacement Float Skidtube

Accept

Setup Start

Item Name: Start Date:

16/12/2009

Start Qty: 1.00 Req'd Qty: 1.00

**Cust Item ID:** 

**Customer:** 

Draw

Number

Reference:

Approvals:

**Process Plan:** 

Date:

Tooling:

Date:

Start



Date:

SPC (Y/N):

Set Up/

**Run Hours** 

Stop

Sequence ID/ Work Center ID

120

QC

Quality Control

Operation Description

OC5- Inspect part completeness to step on W/O

0.00

Date:

Draw

Rev.

Plan

Code

Accept **Qty** 

Run

Reject Qty

Reject Insp. Number Stamp

130

Packaging

Packaging

Packaging

0.00

Identify and pack for shipping as per PPP D412-742-043

Location:

Memo

Memo

PPP Rev:

140

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10-2-23 5/

W/O:	•		WO	RK ORDER CHA	NGES					· · · · · · · · · · · · · · · · · · ·
DATE	STEP	PRO	OCEDURE CHAI			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
				·						
Part No	:	PAR #:	Fault Cate	gory:	NC	R: Yes	No <b>DQ</b> /	\. \:	Date:	
	Res	solution:	Disposition	າ:	QA	: N/C CId	osed:		Date: _	
NCR:			WORK ORDE	ER NON-CONFO	RMANCE	(NCR	)			
	STEP	Description of NC Section A	Initial Action Descrip		Section B tion Sign & Date		Verification Section C		Approval Chief Eng	Approval QC Inspector
			Office Ling	Chief Eng		Date				
		17.80								
:										

December 16, 2009 3:27:12 PM

Work Order ID: 54706

Parent Item:

D412-742-043

Parent Item Name: Replacement Float Skidtube

Purchased

No

Comments:

Component Item ID/	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	st Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Sand
AN3C4A		Purchased	No			110	Each	1,461.000	24.0000	

BOLT

Warehouse	Loc Qty	Loc Code			1
Location	M 113644			$\alpha \cup A \cup A$	
Main Warehouse	17(11)(1			AY X	Mix
ST	1461				1/1/27
112314	13				10/0/21/20
112720	12				. / 1
112724	3				
112829	1				
112991	2				
113121	74				
113226	842				
113359	14				
113422	500				
	110 Eac	th 840.0000	12.0000		

Start Date: 16/12/2009

Start Qty: 1.00

AN3C6A

**BOLT** 

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	840	
111982	840	

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Page 1

Status

**Required Date: 21/12/2009** 

Required Qty: 1.00

Date

Issued

W/O:		WORK ORDER CHA	WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE				Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
			2							

Part No:		PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:		Disposition:	QA: N/C Closed:	Date:

NCR:			WORK ORDE	ER NON-CONFORMANC	E (NCR)			
		Description of NC		Corrective Action Section B	Verification Approval		Annuarial	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
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	1							
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December 16, 2009 3:27:12 PM

Work Order ID: 54706

Parent Item:

D412-742-043

Parent Item Name: Replacement Float Skidtube

Comments:

Component Item ID/ &	Replacement	Mfg/
Item Name	Item ID	Purch



**BOLT** 

AN3C7A

Î (BERN) BINI BINI HEN BENE BINI (BE)	
. 1641/16 161/1616 1616 1616 1616 1616 16	

Start Date: 16/12/2009

**Required Date: 21/12/2009** 

Required Qty: 1.00

Start Oty: 1.00 Last

Bin Primary Item Location

. ∉ .. Route Seq ID Location

110

Unit of Measure

Each

Hand

Remaining **Oty To Pick**  Issued

Issued

Status

549.0000 8.0000

Warehouse	<u>L</u> c	oc Oty	Loc Code	
<b>Location</b>				
Main Warehouse				
ST		549		
105906		21		
107376		252		
( 113149 <b>)</b> V		276		
	110	Each	416.0000	44.0

- 10/02/23 8xm/l

AN960C10L

No Purchased

Purchased



washer

NA 51149C0332 R

<u>Warehouse</u>	Loc Oty	Loc Code
Location	M113288	
OFFSHORE	MINIZADO	
FG	100	
103585	100	
Main Warehouse		
ST	316	
112116	156	
112612	160	
	110 Each	0.0000

D3391-021

Fwd Tube Assembly

Manufactured

Jed on 033946

1.0000



December 16, 2009 3:27:12 PM

**Shop Packet Print** 

Page 2

W/O:		WORK ORDER CH	ANGES			,	
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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						,	
Part No	:	PAR #: Fault Category:	NCR: Yes	No <b>DQ</b>	A:	Date: _	J

Resolution:		esolution:	Dispositi	on:	QA: N/C Clos	sed:	Date: _			
NCR:			WORK ORDER NON-CONFORMANCE (NCR)							
		Description of NC		Corrective Action Section	n B	Verification Section C	Approval Chief Eng			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date			Approval QC Inspector		
	}									
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			1							
***************************************										

December 16, 2009 3:27:12 PM

Work Order ID: 54706

Parent Item:

D412-742-043

Parent Item Name: Replacement Float Skidtube

Comments:

Component Item ID/	
Item Name	

Replasement Mfg/ Item iD

Purch

Manufactured

Manufactured

Primary Item Location

Last Location

Route # Seq ID

110

Unit of Measure

Each

Qty on Hand

1.0000

Loc Code

Remaining Qty To Pick Issued

Start Date: 16/12/2009 Start Qty: 1.00

> Date **Issued**

**Required Date: 21/12/2009** 

Required Qty: 1.00

Status

D3391-023

Mid Tube Assembly

Warehouse Location

Main Warehouse

ST

40522

Loc Qty

110

2.0000 Each

1.0000

1.0000

Aft Tube Assembly

D3391-025

Warehouse Location

Main Warehouse

ST

39129 48122 Loc Qty

Loc Code

W/O:			WO	RK ORDER CHANG	GES				ĸ .
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						\$ .			
Part No	:	PAR #:	Fault Categ	ory:	NCR: Ye	s No DO	)A:	Date:	
	Res	olution:	Disposition		QA: N/C	Closed:	: Date:		
NCR:			WORK ORDE	R NON-CONFORM	ANCE (NO	CR)			
DATE	STEP	Description of NC		tion B	Verif	ication	Approval Approval		
	OIL!	Section A	Initial Chief Eng	Action Description Chief Eng	Sigi Da		tion C	Chief Eng	QC Inspector
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	-	· · · · · · · · · · · · · · · · · · ·							
i i									

December 16, 2009 3:27:12 PM

Work Order ID: 54706

Parent Item:

D412-742-043

Parent Item Name: Replacement Float Skidtube

Manufactured

No

Comments:



Start Date: 16/12/2009

**Required Date: 21/12/2009** 

Page 4

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mig/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit og - Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status	· 💯 -
D3564-1		Manufactured	No			110	Each	24.0000	1.0000				

1 100	1888	E1111	118881	1161
Wears	shoe			

Warehouse	<u>L</u> c	oc Qty	Loc Code	
<b>Location</b>				
OFFSHORE				
FG		2		
33798		2		
Main Warehouse				
ST		22		
47531		1		
50270		1		
(51676 <sup>)</sup> )		20		
	110	Each	14.0000	1.0000

10/02/23 M.L

D3564-3

Wearshoe

Warehouse	Loc Oty	Loc Code
<b>Location</b>		
OFFSHORE		
FG	2	
33764	2	
Main Warehouse		
FP /	11	
(50113)	11	
Main Warehouse		
ST	1	

 $\frac{10/02/23}{12}$ 

46445

W/O:	1		WORK ORDER CHANGES									
DATE	STEP	PR	OCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector				
							:					
Part No	):	PAR #:	Fault Category:	NCR: Y	es No <b>D</b> C	QA:	Date: _					
	Resolution:		Disposition:	QA: N/0	Closed:		Date: _					

NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC	1	Corrective Action Section E	3	Verification	A	A			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspecto			
						:					
								,			
NOTE: D	ate & initial	all entries		1100	I	1	<u> </u>	I.			

December 16, 2009 3:27:12 PM

Work Order ID: 54706

Parent Item:

D412-742-043

Component Item ID/

Parent Item Name: Replacement Float Skidtube

Comments:

Item Name

Replacement Mfg/ Item ID

Purch

Manufactured

Bin Primary Item Location Last Location

Route Seq ID 110 Each

Unit of Measure

Hand 18.0000

Qty on Remaining Qty To Pick Issued

Start Qty: 1.00

Start Date: 16/12/2009

Qty

Date Issued

Required Qty: 1.00

**Required Date: 21/12/2009** 

Status

Page 5

D3564-5

Wearshoe

1.0000

Warehouse	Loc Qty	Loc Code	
<b>Location</b>			
OFFSHORE			
FG	2		
34806	2		
Main Warehouse			
FP19	14		
51925	1		
53805	13		
Main Warehouse			
ST	2		
45824	1		
47433	1		

B54772

1x m. h 10/02/23

W/O:			WC	RK ORDER CHAN	GES				·····			
DATE	STEP	PRO	OCEDURE CHAI	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
								:				
										,		
Part No	ll	PAR #:	Fault Cate	gory:	NCR	: Yes N	lo DQA	\:	Date: _			
	Resolution:			Disposition: QA: N/C Clos					sed: Date:			
NCR:			WORK ORDI	ER NON-CONFORM	IANCE	(NCR)	)					
DATE	STEP	Description of NC Section A	Initial	Action Description	ection B Sign &		Verification Section C		Approval Chief Eng	Approval QC Inspector		
			Chief Eng	Chief Eng		Date						
									·			

December 16, 2009 3:27:12 PM

Work Order ID: 54706

Parent Item:

D412-742-043

Parent Item Name: Replacement Float Skidtube

Comments:



Start Date: 16/12/2009

**Required Date: 21/12/2009** 

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remain⊯g Qty To Pick	Qty Issued	Date Issued	Status
D3566-1		Manufactured	No			110	Each	35.0000	2.0000			
CLIN				<u>Warehous</u> <u>Locat</u> Main War	- <u>ion</u> 3,4	<u>Loc (</u> 5532		Loc Code	9	LΧ	m-L	

Warehouse	Loc Qty	Loc Code		
<b>Location</b>	BSS320		$Q \vee$	m-1
Main Warehouse	00000		$\langle \mathcal{N} \rangle \langle \mathcal{N} \rangle$	
FP	30			- $12$ $1$ $1$
52512	3			= 10/v2/23
53790	4			i · · ·
54480	23		-	
Main Warehouse				
ST	5			
46349	1			
51218	1			
51259	3			
	110 Eac	h 19.0000 1	.0000	
		- 11	16911 1691	

D3566-5

Gasket

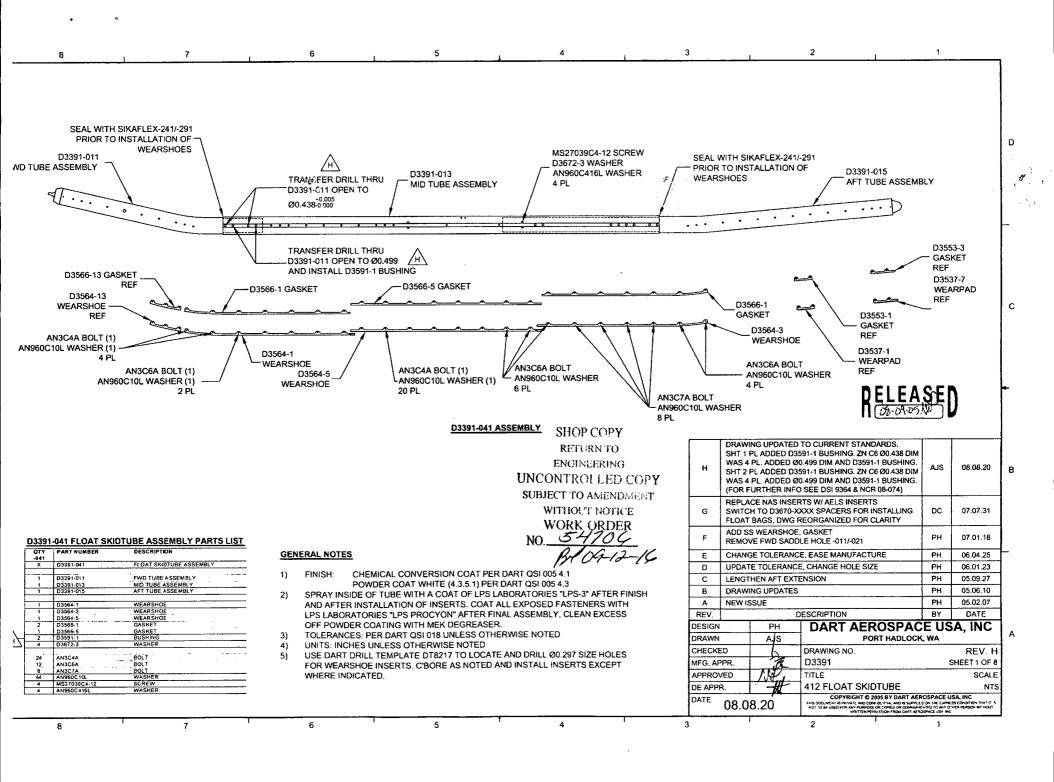
Manufactured

Warehouse	Loc Qty	Loc Code
Location	B55026	
Main Warehouse	1533000	
FP	15	
53804	15	
Main Warehouse		
ST	4	
36113	1	
46186	1	
47318	1	
51260	1	
	** * · · · · · · ·	

**Shop Packet Print** 

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W/O:			WO	RK ORDER CHANGI	ES					
DATE	STEP	PROCEDURE CHANGE					Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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i										
							•	:		
Part No	:	PAR #:	Fault Cated	lorv:	NCF	R: Yes	No DQ	) <b>A</b> :	Date:	
				QA: N/C Closed: Date:						
NCR:		\	WORK ORDE	R NON-CONFORMA	NCE	(NCI	7)			
DATE	CTED	Description of NC	escription of NC Corrective Action		n B		Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign Date	& Section		Chief Eng	QC Inspector
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					1					
						-		·-·		



D SEAL WITH SIKAFLEX-241/-291 PRIOR TO INSTALLATION OF WEARSHOES D3391-021 SEAL WITH SIKAFLEX-241/-291 FWD TUBE ASSEMBLY PRIOR TO INSTALLATION OF D3391-025 D3391-023 WEARSHOES TRANSFER DRILL THRU AFT TUBE ASSEMBLY MID TUBE ASSEMBLY D3391-021 OPEN TO Ø0.438-0.000 TRANSFER DRILL THRU D3553-3 С D3391-021 OPEN TO Ø0.499 GASKET AND INSTALL D3591-1 BUSHING REF D3566-13 GASKET REF D3566-5 GASKET D3566-1 GASKET D3564-13 D3537-7 D3566-1 WEARSHOE WEARPAD D3553-1 GASKET REF REF GASKET D3564-3 REF AN3C4A BOLT **WEARSHOE** D3537-1 AN960C10L WASHER D3564-1 WEARPAD 4 PL WEARSHOE AN3C6A BOLT REF AN3C6A BOLT AN3C6A BOLT AN960C10L WASHER D3564-5 AN3C4A BOLT AN960C10L WASHER AN960C10L WASHER WEARSHOE AN960C10L WASHER 6 PL 2 PL AN3C7A BOLT 20 PL AN960C10L WASHER 8 PL В **D3391-043 ASSEMBLY** 03391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST **GENERAL NOTES** OTY CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 FINISH: FLOAT SKIDTUBE ASSEMBLY 1) POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3 FWD TUBE ASSEMBLY D3391-021 SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH D3391-023 MID TUBE ASSEMBLY AND AFTER INSTALLATION OF INSERTS, COAT ALL EXPOSED FASTENERS WITH WEARSHOE LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS D3564-3 OFF POWDER COATING WITH MEK DEGREASER. D3564-5 WEARSHOE TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED D3566-GASKE GASKET UNITS: INCHES UNLESS OTHERWISE NOTED USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES AN3C4A DESIGN DART AEROSPACE USA, INC FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT AN3C6A WHERE INDICATED. DRAWN PORT HADLOCK, WA AN960C1 CHECKED DRAWING NO. REV. H D3391 MFG. APPR SHEET 2 OF 8 **APPROVED** TITLE SCALE 412 FLOAT SKIDTUBE DE APPR NTS COPYRIGHT © 2005 BY DART AEROSPACE USA, INC 08.08.20 THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT NOT TO SEUSED FOR ANY PURPOSE OR CORRED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WHITTIS PERMISSION FROM DART ALROSPACE, 2HA PIC 5 3 7 6

